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ABSTRACT

An exploratory survey of firms concerning their need for specialists for pursuing trade in Pacific Rim markets is reported. The industries surveyed include food and agriculture, sportswear and sports equipment, and applied electronics. After an introductory section explaining the origins and development of the survey, the report presents the major findings relating to current and planned business, current and needed expertise, and the supply of adequate job applicants in those industries. Implications of these findings for California's educational institutions, students, and public policy include these: (1) students of international business and Pacific Rim languages should not expect to find well-defined positions in these industries, but must demonstrate to each firm how they can help improve the firm's position or market attractiveness; (2) many small firms are unlikely to establish an entire position devoted to "secondary" market concerns, but will expect each employee to focus on their product; (3) contracting with consulting firms concerning foreign markets is common practice; (4) while many firms rely on either English or a founder's linguistic expertise, concern for foreign language skills is growing; and (5) statewide planning and coordination is needed to meet these needs. The informational survey is included. (MSE)

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EDUCATION NEEDS OF CALIFORNIA FIRMS FOR TRADE IN PACIFIC RIM MARKETS

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Summary

This report discusses the findings from an exploratory survey of firms in three selected California industries -- food and agriculture, sportswear and sports equipment, and applied electronics -- concerning their need of specialists for pursuing business in countries around the Pacific. The survey stemmed from the Commission's 1987 report, *Looking to California's Pacific Neighborhood: Roles for Higher Education.*

Pages 1-2 explain the origins and development of the survey; pages 2-7 present its major findings; and pages 7-9 identify five implications of the findings for California's educational institutions, students, and State educational policy.

The Policy Development Committee of the Commission discussed this report at its meeting on December 12, 1988. Additional copies of the report may be obtained from the Library of the Commission at (916) 322-8031. Questions about the substance of the report may be directed to Dale M. Heckman of the Commission staff at (916) 322-8021 or Christina Olson at (916) 322-8681.

EDUCATION NEEDS OF CALIFORNIA FIRMS FOR TRADE IN PACIFIC RIM MARKETS

A Staff Report to the California Postsecondary Education Commission

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION
Third Floor • 1020 Twelfth Street • Sacramento, California 95814-3985

COMMISSION REPORT 88-43
PUBLISHED DECEMBER 1988

THIS is one in a series of staff reports on important issues affecting California postsecondary education. These reports are brought to the California Postsecondary Education Commission for discussion rather than for action, and they represent the interpretation of the staff rather than the formal position of the Commission as expressed in its adopted resolutions and reports containing policy recommendations.

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Education Needs of California Firms for Trade in Pacific Rim Markets

Origins of the report

In its June 1987 report, *Looking to California's Pacific Neighborhood: Roles for Higher Education*, the Commission reached the following conclusion (p. 24):

> One hundred fifty years ago, just before California embraced the United States, most Californians looked to their neighbors, near and far, on the Pacific for their collective well-being. Ships came from the south, north, and west, bearing the people and goods that helped form a new cosmopolitan culture on this edge of the vast Pacific basin.
>
> Now California has entered another pivotal moment of its history, when the times invite and urge its citizens to reorient themselves once more toward their own neighborhood of Pacific nations and states. We are already late in doing so.
>
> To determine with useful clarity what California as a society needs to do to fulfill its rightful place in the Pacific neighborhood will require not only educational but also political and economic leadership. Schools and colleges are taking significant initiative in this direction and appear ready to take more. Yet for all their imaginative and mostly local changes, to become part of a deliberate statewide development will require new information, new State-level dialogue, and new State-level decisions and coordination on the issues raised in this report. If approached with a due sense of their urgency, these issues can be resolved. To this end, the Commission is prepared to continue its analyses of them and to play a coordinating or convening role as appropriate in helping resolve them.

As the first step in continuing its analysis of these issues, the Commission authorized the staff to work with other interested organizations in learning from California employers about their need for workers knowledgeable about the Pacific Rim. The Commission noted that "clearer and more precise estimates of need from the world of potential employers are an important part of a State strategy for closer links with the Pacific Rim," but it found no available answers to such questions as "What kinds of special knowledge and skill will be needed?" and "What combinations of them will be in greatest demand?"

Development of the survey

To begin to answer such questions, staff developed a survey questionnaire in Winter 1987-88 with cooperation from the California Department of Commerce, the California World Trade Commission, and the California Economic Development Corporation. The appendix to this report reproduces the questionnaire and explains the methodology of the survey. In brief, the questionnaire asked employers about any special knowledge and skills they presently use in doing business with particular Pacific Rim countries and what they would plan to use within the next ten years. It distinguished between foreign language needs and others, such as knowledge of sociocultural or political and economic systems; and it asked whether employers had been able to find this expertise among prospective employees.

Staff of the Commission, the Department of Commerce, and the World Trade Commission agreed that rather than covering all fields of business and industry, this exploratory survey should focus on three key industries that rank among the most active in California's international trade, and therefore are most likely to employ international expertise -- (1) food and agriculture; (2) sportswear and sports equipment; and (3) applied electronics, including telecommunications and computers.

Among the 1,700 firms to which questionnaires were

mailed, 584, or 35 percent, sent back usable responses within a month. Display 1 below shows the distribution of these responses by industry. While the exploratory nature of the survey should be emphasized, and while these responses obviously do not reflect all California industries, they provide the first statewide statistics available to colleges and universities about three industries active in international trade and their professional employment needs for serving Pacific markets.

Findings from the survey

Current and planned business

Of the 584 firms responding, 70 percent reported that they presently do some portion of their business with Pacific Rim countries. The countries, ranked by the proportion of respondents doing business with them (regardless of dollar volume of the transactions), are shown in Display 2 at the right. As can be seen, the Asian countries of Japan, Taiwan, Korea, China/Hong Kong, and Singapore lead this list, followed by Australia and New Zealand. Experts on the region caution, however, that this ranking is in rapid flux and that California trade with China and Hong Kong continues to gain momentum while Japan has become a "mature" market. China and

DISPLAY 2 Countries Named as Sources of Business by Responding Firms, Spring 1988

Country	Rank	Percent
Japan	1	22.1%
Taiwan	2	15.7
Korea	3	12.3
China and Hong Kong	4	11.7
Singapore	5	8.2
Australia	6	8.1
New Zealand	7	2.8
Mexico	7	2.8
Other Latin America	8	2.6
Indonesia	9	2.0
Philippines	10	1.7
Thailand	11	1.3
Canada	12	0.5
Oceania (Islands)	13	0.3

Note: Only the top 14 countries plus Oceania are listed here, out of more than 40 Pacific countries total. As noted in the text, trade experts report that fourth-ranked China and Hong Kong are increasing their trade with California at a higher rate than top-rated Japan, Taiwan, and Korea. Percentages do not total 100 percent since companies commonly named more than one country with which they do business.

Source: California Postsecondary Education Commission staff analysis.

DISPLAY 1 Surveyed and Responding Firms, by Industry

Type of Firm	Number Surveyed	Number Responding	Responses as a Percentage of Total Questionnaires Mailed
Food and Agriculture	162*	105	64%
Sportswear and Equipment	245	87	36
Electronics	1,360	392	28
Total	1,767	584	35%

* Note: Some of the "Food and Agriculture" responses came from marketing organizations, such as cooperatives or growers' associations, that represent scores of farm corporations. The numbers surveyed and responding are therefore deceptively small, considering the portion of this industry actually represented by them. A small number of respondents in the "Food and Agriculture" category indicated that their firms were involved in manufacturing or services. As a result, some of these responses were not tallied as within any of the three industrial categories, thus creating minor discrepancies in totals.

Source: California Postsecondary Education Commission staff analysis.

Hong Kong may soon displace Taiwan, these experts advise, in terms of trade with California firms.

Among the 70 percent of the firms currently doing business with Pacific Rim countries, over half do less than 10 percent of their total business volume in this market. Display 3 lists the companies by size category and shows in one column the percentage with Pacific region clients now and, in the other, the additional percentage planning to expand into these markets over the next decade. (Display 4 shows these same data graphically.) Generally the larger the firms, the more likely they already do some portion of their current business with Pacific Rim countries. For example, 93 percent of the firms with over a thousand employees are already involved, compared to only 63 percent of the smallest ones sur-veyed -- those with from 11 to 25 employees.

Displays 3 and 4 also show that among even these small firms, 80 percent may be involved within the decade, as may 93 percent of those with from 101 to 250 employees. In contrast, among firms larger than 250, most that have not entered the market do not plan to do so

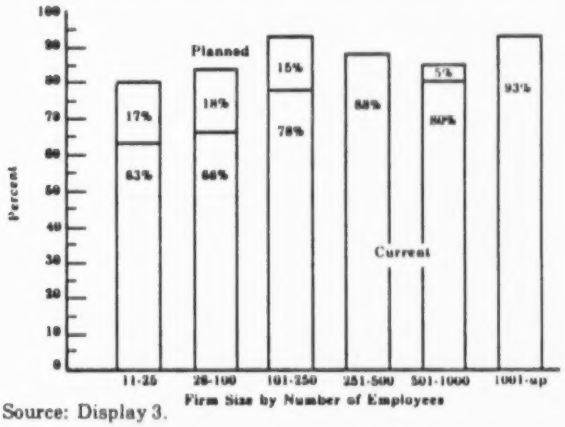
Display 5 at the top of page 4 shows that firms in California's sporting goods and sportswear industry are less involved in Pacific Rim trade, have fewer plans to become involved, and express far less need for Pacific Rim language and marketing expertise than those in either the electronics or food and agriculture industries. In terms of employment, then, Pacific Rim specialists would be better advised to search for career opportunities in the latter fields than in the former.

DISPLAY 3 Percent of Firms Currently Doing Business or Planning to Do Business with Pacific Rim Countries, by Size of Firm

Number of Employees	Currently Engaged	Planning To Begin
11-25	63%	17%
26-100	66	18
101-250	78	15
251-500	88	0
501-1,000	80	5
1,001 and Over	93	0

Source: California Postsecondary Education Commission staff analysis.

DISPLAY 4 Percent of Firms Currently Doing Business or Planning to Do Business with Pacific Rim Countries, by Size of Firm



Source: Display 3.

Current and needed expertise

What kinds of special knowledge for commerce on the Pacific do these California firms employ? And what kinds do they expect to employ? Thirty-seven percent of the firms responded that they employ persons who use a non-English Pacific Rim language in the course of their work, but this percentage is higher than those whose external Pacific Rim dealings require such languages, since it includes agribusinesses that hire Hispanic field managers and at least some manufacturing firms that employ Asian immigrants who simply speak their native tongue at work. But 24 percent presently employ staff "whose job requires special knowledge of cultural, economic, or political systems of a country on the Pacific." So undoubtedly between a third and a fourth of all the responding firms depend on some employees' communication expertise for conducting their trade with clients in Pacific Rim countries. In fact, some respondents noted that they need this expertise for use here. For instance, the sales director of a Van Nuys corporation replied, "We need the language skills to be responsive to customers in the California market itself."

Display 6 shows that Mandarin and/or Cantonese Chinese, Spanish, and Japanese account for the bulk of responses regarding currently used languages, with Korean and Vietnamese used by less than 10

DISPLAY 5 Pacific-Rim Characteristics of Responding Firms, by Industry

Characteristic	Food and Agriculture N = 105	Sportswear and Equipment N = 86	Applied Electronics N = 392	Total N = 584
Currently doing business or planning to do business with Pacific-Rim countries	75%	64%	92%	85%
Currently employing or planning to employ Pacific-Rim expertise	36	26	47	42
Currently employing persons needing non-English Pacific-Rim language skills	37	24	40	37
Planning to employ Pacific-Rim experts within the next ten years	44	24	48	44

Source: California Postsecondary Education Commission staff analysis.

DISPLAY 6 Pacific-Rim Languages Currently Used by Responding Firms

Language	Rank	Percent
Mandarin or Cantonese Chinese	1	32.6%
Spanish	2	21.9
Japanese	3	20.1
Korean	4	8.1
Vietnamese	5	5.6
Thai	6	3.6
French	7	2.3
Malay/Indonesian	8	1.3
Others	--	2.5

Note: Percentages do not total 37 because some firms use more than one non-English language, and some did not specify which language is used.

Source: California Postsecondary Education Commission staff analysis.

percent, and Thai, French, Malay/Indonesian, and others used by less than 5 percent.

In response to the question, "What is the title of the position and its level within the firm" of employees using a non-English language, 35 percent of the firms using a non-English language reported that the position involved middle management, including overseas representatives, while an equal percentage indicated it involved local production. Follow-up telephone conversations with some of the respondents revealed that the positions ranged from local welding managers who needed Japanese language skills to communicate with Japanese firms on technical matters to brokers or agents who market products abroad and require a strong command of local languages as well as knowledge of import/export systems and local customs. Some of these follow-up comments indicated that when companies need specific ongoing expertise in a non-English language, they prefer to hire foreign nationals or "native speakers" rather than Americans who have acquired the language by other means. As the executive of one San Francisco Bay firm noted, "Japanese trading companies do a good job of providing support vis-a-vis language."

In most cases, respondents indicated that employees who needed non-English languages in their work did not receive additional compensation for this skill but rather had either landed the job because of having the skill or knew the skill would be required as part of the job description. The executive of a Sacramento firm stated, "No specific salary increment is paid for language skills, but communication skill is implicit in working effectively, and employees are compensated for being good at their work."

As noted earlier, some 24 percent of the responding firms report that they presently employ someone "whose job requires special knowledge of cultural, economic, or political systems of a country on the Pacific." It seems clear from their responses that they favor candidates with extensive, direct experience in the country or culture of the language, rather than fluency alone. For example, "It's more important to

know culture than language," said the executive of a Salinas firm. "Knowledge of the Japanese language *and* Japanese business methods would be helpful," replied the director of marketing for a Bakersfield corporation. And "we hire local promotion representatives in Far East countries specifically because of their knowledge of local languages and cultures" stated the director of foreign market development of a Fresno firm.

As would be expected, a greater proportion of the large companies than of small ones currently employ such specialists (Display 7). The marketing services manager of one Los Angeles firm illustrated the problem: "We are a small company and cannot hire specialists at this time; however, company executives are engaged in foreign language training at the community college level."

DISPLAY 7 Percent of California Firms Currently Employing Cultural, Economic, or Political Expertise About Pacific-Rim Countries, by Number of Employees

Number of Employees	Percent
11-25	18%
26-100	26
101-250	31
251-500	53
501-1,000	25
1,001 and More	68

Source: California Postsecondary Education Commission staff analysis.

Display 8 shows the Pacific Rim countries ranked by number of California firms that currently employ staff with knowledge of specific countries around the Pacific. As can be seen, they mention Japan twice as frequently as any other country, followed by Taiwan, Korea, and China/Hong Kong. As noted earlier, trade experts indicate that such rankings are likely to change considerably in the near future.

Some 44 percent of the responding firms say they plan to employ persons with Pacific Rim knowledge and skills during the next ten years (Display 5), while a few more hope to do so. Among the 44 percent, those firms with fewer than 100 employees indicate they plan to use specialists' knowledge at about twice the rate they currently employ such persons. Among firms employing more than 100 workers, the planned increase is about 30 percent. Among the three industries surveyed, Display 5 showed that proportionately twice as many electronics firms plan to seek such expertise as do sportswear and sporting goods firms -- 48 to 24 percent -- with food and agriculture firms in between at 44 percent.

DISPLAY 8 Pacific-Rim Countries Ranked by Number of California Firms Currently Employing Cultural, Economic, or Political Expertise About Them

Country	Rank	Percent
Japan	1	29.5%
Taiwan/Formosa	2	14.2
Republic of Korea	3	13.2
China and Hong Kong	4	12.6
Singapore	5	7.4
"All Asia"	6	5.8
Mexico	7	3.1
Other Latin America	8	2.8
Australia	8	2.8
New Zealand	8	2.8
Indonesia	9	1.5
Philippines	9	1.5

Note: Percentages do not total 24 because some firms mentioned more than one country, and some did not specify a particular one.

Source: California Postsecondary Education Commission staff analysis.

Overall, it seems safe to estimate that, across the three industries polled, employment of persons with this special knowledge and skills will increase by at least 15 percent through the 1990s. But it is also noteworthy that hardly more than half of all firms who either already do business or plan to do business around the Pacific also expect to employ special expertise pertinent to the countries and cultures of their clients -- a finding that poses questions about company strategies for competing beyond the short term.

From the evidence of this survey, California firms with fewer than 250 employees hold more potential

than larger firms for employing graduates with various international skills, since these moderate-sized companies are the "new growth" zone rather than large corporations in needing expertise for exploring new markets. The executive of a large electronics corporation stated that while firms such as his tend to staff their marketing offices in foreign countries with local residents, medium-sized firms tend to "look for California residents who are internationally trained." Display 9 below shows the number of these firms by size, type of industry, and location in northern as opposed to southern California.

Supply of adequate applicants

Some 4 percent of the respondents reported that their firms had failed to find candidates with the knowledge or skills related to the Pacific Rim that their firms had sought. Unfortunately, their responses do not include information about which skills and knowledge their company had sought nor how they had gone about their search. A greater problem is that, for all the other responding companies, one cannot determine from this survey what level of capability they have been content with. Al-

DISPLAY 9 *Number of Responding Firms Currently Employing or Planning to Employ Pacific Rim Expertise, by Industry, Number of Employees, and Region*

Number of Employees	Region of the State	Food and Agriculture	Sportswear and Equipment	Applied Electronics	Total
11-25	Northern California	10	4	18	32
	Southern California	2	6	11	19
	Total	12	10	29	51
26-100*	Northern California	3	0	43*	46
	Southern California	2	5	24*	31
	Total	5	5	67	77
101-250	Northern California	4	1	22	27
	Southern California	2	0	13	15
	Total	6	1	35	42
251-500	Northern California	2	0	18	20
	Southern California	0	0	7	7
	Total	2	0	25	27
501-1,000	Northern California	1	1	3	5
	Southern California	1	0	3	4
	Total	2	1	6	9
1,001 and Up	Northern California	1	0	14	15
	Southern California	2	0	5	7
	Total	3	0	19	22
Size Unknown	Northern California	6	2	2	10
	Southern California	2	3	1	6
	Total	8	5	3	16
Total		38	22	184	244

* Among responses from electronic/computer/appliance firms in Southern California, in this size category alone were ten "maybe's," "not sure," and the like, while in Northern California there were four "maybe's."

Source: California Postsecondary Education Commission staff analysis.

though it was not the topic of our inquiry, a number also complained about the poor general skills of applicants in such areas as written and oral communication, mathematics, and cooperative work habits. "More important than training specific to marketing in the Pacific Rim is to give us better basic training" said the respondent of a San Francisco manufacturing firm. "We can't find the electronics engineers we need," said an executive of a Silicon Valley communications firm; "Why worry about 'culture'?" And the president of a Marysville agricultural company stated, "It is very difficult to find people with both language capability and technical competence." Other respondents repeatedly noted that applicants must combine a knowledge of Pacific cultures, languages, or economic-political systems with such technical experience as production, marketing, or management and such specific knowledge as export-import regulations, contract negotiations, and transportation.

Clearly, many firms seek foreign nationals who claim expertise in both the language and customs of other countries rather than Californians. As the president of a San Jose firm said, "Were we searching for a person with Asian language skills, we would hire a person whose native language was Asian, provided he had business skills also."

In any case, the questionnaire at this point could only open a much-needed dialogue between California entrepreneurs and scholars from various disciplines. The issue of "need" and satisfaction in the era of Pacific competition, is complex and changing, and one that many businesses evidently are still sorting out for themselves.

The "4 percent finding," for example does *not* demonstrate that California's higher education institutions have prepared 96 percent of the expertise sought by California firms in this matter; nor does it reveal where or how candidates were sought or found. Furthermore, in view of the current unfavorable balance of trade, this figure does not demonstrate that 96 percent of California firms have employed the capabilities they might need for successfully competing in new Pacific marketplaces, nor the extent to which California firms must still employ talent from outside California. Thus, the present inquiry should be seen as opening, rather than concluding, a needed dialogue.

Conclusions

The findings of this exploratory survey support the 1986 conclusion of the California Economic Development Corporation that "California businesses require workers whose basic skills include a knowledge of the languages, histories, and traditions of our trading partners" (p IV-40). Firms in the three dynamic industries surveyed by the Commission overwhelmingly are interested in developing business around the Pacific Basin: At least 80 percent either are currently involved in Pacific Rim trade or plan to be involved within the decade, -- very often in more than one country -- and many recognize that this international trade will require new competence on their part.

At the same time, it appears likely that many if not most California firms heretofore have depended on foreign nationals for their success in Pacific Rim trade, when they have employed any special expertise for that region.

These findings have several implications for California's academic institutions, their students, and their faculty members:

- First, students of international business and of Pacific Rim languages and cultures should not expect to locate well-defined positions awaiting them in these industries, although some such positions do exist. Rather, they may need to demonstrate how they can help a particular firm improve its position or its attractiveness in a given foreign market and to propose doing such work. Otherwise most firms are likely to seek their needed expertise among other candidates -- among them, foreign nationals, and non-residents with Pacific-Rim languages. The common axiom, "education creates jobs," probably has its clearest meaning here, and colleges and universities should help prepare their internationally-oriented students for this task of "selling" themselves to prospective employers.

- Second, many small firms of less than 100 employees are unlikely to establish an entire position devoted to "secondary" concerns regarding a potential market area; instead they will expect employees to have a primary focus on their product. As a result, few graduates can expect to find employment in these industries simply on the basis of language or cultural skills. Instead, they will

need to combine these liberal arts skills with technical business expertise.

Integrating technical expertise and cultural awareness is not a new idea to California's higher education institutions. Within the University of California, for example, UCLA has recently added new expertise on China and Japan to its law school faculty; the Berkeley campus has begun a joint master's degree program in business administration and Asian studies; and the San Diego campus has international management built into its master's programs. But on many campuses, the creating of such combinations of "traditional" disciplines falls entirely to the students' own initiative. Faculty from modern languages, political science, business, law, and other disciplines should continue discussions with one another in order to help students build these academic combinations.

- Third, a common practice among small- to mid-sized firms that is evident from this survey is that of contracting with consulting firms for handling many tasks related to dealing with foreign markets. Often these consulting firms are themselves foreign owned and operated -- having been established to contract with American industry. There may be increasing place for Californian consulting groups, therefore, that combine a variety of expertise on the cultures, commerce, and the legal and commercial systems in major Pacific Rim markets. An analogy would be those diversified law firms where professionals specialize in different branches of the law but combine their distinctive expertise in collaborating to solve the specific problems of their clients. American consultants must demonstrate a similar ability to bring wide-ranging expertise to the particular needs of each client. Students with international expertise and business know-how may be able to join or even create such consultancies for small- and medium-sized client firms in California.

- Fourth, respondents revealed that some company offices still operate in the "Let them speak English" mode that worked well enough around the Pacific after World War II. Proportionately more, however, appear to depend on their founder's or chief executive's linguistic background as well as that person's contacts in the other marketplace. An executive of a 60-person firm in southern California commented on his firm's future need for communicating in the language of its marketing area by saying, "For now, the fact that English is the world's business language saves us." His anxiety about the future seemed evident. In most responses, the ability to communicate and get along well in a foreign culture was nearly taken for granted -- i.e., either checked with no further comment by the respondent or else assigned to a native speaker, perhaps hired in the other country where business was to be done. In almost all cases, language ability appears subordinate to the business topics that are the subjects of communication, except where interpreters may be hired for high-level international meetings or linguists are employed to translate instructions and other material into other languages.

  For monitoring California's progress toward effective use of its rich resources for acquiring non-English languages, the State would need to gather different statistics from those it presently gathers. The number of "majors" in a modern language, for example, provides little help for projecting or estimating "manpower" for commercial employment purposes. What would provide more adequate (though not ideal) data would be the numbers of students tested at a certain proficiency level such as "Foreign Service Standard: Intermediate-High Stage 3." Short of that, a proxy measure of enrollment figures in, say, the seventh semester of a language would help planning on a statewide basis. Ideally it should also be possible to know how many Californians with some higher education have, from whatever source, a near fluency in another Pacific Rim tongue. A survey of private "Saturday schools" would help greatly. In the case of students in California higher education, their language proficiency should be reported along with their actual major or specialization.

- Finally, throughout California higher education, scholars in various disciplines have taken the initiative to work with interested business groups and government agencies in helping fill education and training needs in the realm of world trade. It is less clear, however, that such initiative and collaboration are sustained at a statewide level, let alone at regional or even campus-wide levels, or with small and medium-sized California firms that are the most numerous potential employers of specialists in the Pacific Rim.

The Legislature's Joint Committee for Review of the Master Plan for Higher Education has concluded, "We do not have effective mechanisms capable of assisting university planning. It is difficult to determine those areas in which the State may need more investment . . ." (p. 117). Faculty and administrators' ongoing dialogue with business executives, especially from small and medium-sized California firms, can improve this planning. There may be need for a new kind of linkage or conferring at the State level, to enhance the "fit" between those institutions that prepare students to assume positions in international commerce and those firms desiring to develop Pacific-Rim markets. One respondent suggested a series of seminars in his region of the State on the manpower questions raised by the survey. "Manpower planning" may sound too rigid a term to use; many still think of it as "X number of positions will be out there to be filled, so Y number of persons must be trained." Yet some kind of informed, ongoing liaison on a California-wide scale seems necessary to accelerate the State's full and balanced participation in the growing and complex trading of the emerging Pacific community.

As two executives of a manufacturing firm in the Bay Area wrote, "One specific area of concern we share is . . . that American industry lacks some of the competitive capability we so desperately need. . . . This requires intelligent cooperation between post-secondary resources and the business community. Until that linkage is established, . . . the resources of higher education for this region will not be properly utilized."

Acknowledgements

Such an inquiry as this into the business and commercial realm entails new and different sources of advice and insight than those on whom the Commission staff normally depends. The staff found ready encouragement and information in the early stages of this study from colleagues in two other State agencies -- Chris Cochran and Janet Turner of the California Department of Commerce, and Robert Churney, in the California World Trade Commission.

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William Lawson, Dean, Continuing Education, Oxnard Community College.

Methodological appendix

Pages 13 and 15 reproduce the cover letter and questionnaire used to gather the information summarized in this report. As can be seen, the questionnaire did not attempt to distinguish between import and export activities, despite the fact that such information would help improve understanding of the dynamics or strategies of competition of the respondents. Commission staff accepted the strong advice of other agencies that such questions would appear as seeking "proprietary information" and therefore interfere seriously with the response rate.

The survey used the Commission's 1987 report *Looking to California's Pacific Neighborhood* to define

"Pacific Rim": "All those lands with coastline on the Pacific Ocean," which includes more than 40 separate countries, counting the small island nations. The questionnaire furthermore listed ten languages other than English as Pacific Basin languages.

Several mailing lists were used to select the sample, each from a professional vendor of industrial lists and as many firms in a given industry as possible, in both northern and southern areas of California. In the three chosen industries combined, somewhat over 1,700 firms and current contact officers were listed. A total of 78 questionnaires were returned as undeliverable, and some companies were excluded from final tallies because their actual headquarter offices are located outside California and there seemed to be no hiring authority in their California operation.

How large a sample of California firms did this mailing represent? Obviously the sample cannot offer a precise statistical reflection of California business firms overall by industry. In fact, no surveyor should imply such precision without a current and complete master list of *all* California firms, arrayed alphabetically or in some logical order. The California Employment Development Department (EDD) provided statistics showing the total number of incorporated firms within California, by size and for certain industrial categories. In the EDD information, two industries (agriculture and electronic-electrical equipment manufacturers) seem to coincide closely with two of those used in the Commission's survey. Subtracting those firms with ten or fewer employees (again, as in the Commission survey), the numbers of incorporated firms in California for the two industries and the number surveyed are shown in Display 10 at the right.

Display 11 below shows the distribution of the sample by size of firm (number of employees) and industry..

DISPLAY 10 Incorporated Firms in Two Industries in California with More than Ten Employees, and Number Surveyed

	Electronics	Food and Agriculture
Number of Firms	2,160	8,324
Number Surveyed	1,360	162

Note: Some "Food and Agriculture" responses came from marketing organizations such as cooperatives or growers' associations, that represent scores of farm corporations; the numbers surveyed and responding are therefore deceptively small, considering the portion of this industry they actually represent.

Source: California Postsecondary Education Commission staff analysis.

DISPLAY 11 Distribution of Respondents by Size of Firm

Size	Total Number	Percentage
11-25	146	24%
27-100	239	40
101-250	78	13
251-500	36	6
501-1,000	20	3
1,001 and Up	28	5
Did not state size	36	6

Source: California Postsecondary Education Commission staff analysis.

References

California Postsecondary Education Commission. *Looking to California's Pacific Neighborhood: Roles for Higher Education. A Report to the Governor and Legislature in Response to Assembly Concurrent Resolution 82 (1986).* Commission Report 87-24. Sacramento: The Commission, June 1987.

--. *Institutional Report on Pacific Rim Programs: Submissions by the California Community Colleges, the California State University, and the University of California in Response to Assembly Concurrent Resolution 82 (1982).* Commission Report 87-25. Sacramento: The Commission, June 1987.

California Economic Development Corporation. *California and the Pacific Rim -- A Policy Agenda. 1986.* Sacramento: The Corporation, 1986.

STATE OF CALIFORNIA
GEORGE DEUKMEJIAN, *Governor*

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION
1020 TWELFTH STREET
SACRAMENTO, CALIFORNIA 95814
(916) 445-7933

March 18, 1988

Dear

As Governor Deukmejian stated in opening his recent Pacific Rim Roundtable (October 15, 1987),

> Two-thirds of California's international trade is done with nations stretching across Asia and Latin America. This region . . . has grown into an economic marvel that underscores the universal power of peaceful enterprise . . . . It is my hope that we can forge a strong partnership dedicated to advancing prosperity throughout the Pacific community.

In the State's effort to facilitate increased California trade, our educational institutions need more specific information about present and planned requirements of California firms for people educated to do business in the Pacific region. This region includes Asian and Latin American countries as well as English-speaking and island neighbors.

Your firm has been carefully -- and not randomly -- selected to help inform us about educational needs of companies in your field. This survey does not seek any proprietary information, such as the name of your firm or its products. But please help us to help you and California by providing as specific information as you can.

The accompanying survey was developed in cooperation with the California Department of Commerce, Office of Economic Research, and the California World Trade Commission.

Please respond to the 10 questions on the survey form and send it to us by April 8 with any further comments you wish. You will be helping California's colleges to plan for meeting the needs of business on the Pacific Rim. We appreciate your consideration.

Cordially,

William H. Pickens

William H. Pickens
Executive Director

WHP/kc

Enclosure

ASSESSMENT OF PACIFIC RIM-RELATED EDUCATIONAL NEEDS OF CALIFORNIA BUSINESSES

This brief survey seeks information for planning educational programs. California colleges and universities need to know the requirements of businesses for preparing personnel to do business in the Pacific region. Do not include any proprietary information such as the name of your firm or products. Your response by April 8, 1988 will be warmly appreciated.

1. Type of firm: Manufacturing ☐ Agriculture ☐ Services ☐ Other ☐
   Approximate number of employees: ____

2. Does your firm do business with Pacific Rim countries?

   Yes ☐
   If so, approximately what percentage of firm's total is in Pacific region? _____%
   Which Pacific Rim countries? _____

   No ☐
   If not, does it plan to do so in the next ten years? Yes ☐ No ☐

3. Does your firm employ any staff who use a non-English, Pacific-Rim language* in the course of their work? Yes ☐ No ☐

   If so, which languages? _____
   What is the title of their position(s) and their level in the firm?

   _____

   [* "Pacific Rim" languages commonly include Spanish, Cantonese, Mandarin, Japanese, Malay/Indonesian, Korean, Thai, Vietnamese, French, Russian.]

4. Do these employees receive additional compensation for foreign language skills? Yes ☐ No ☐
   If yes, what kind of compensation? _____

5. Does your firm employ anyone whose job requires special knowledge of cultural, economic, or political systems of a Pacific Rim country? Yes ☐ No ☐
   If yes, which countries/cultures? _____

6. Does your firm plan to employ persons with such skills in the next ten years? ☐
   Yes ☐ No ☐

   (a) Knowledge of history/culture? ☐ (b) Knowledge of economic/political system? ☐
   (c) Skills in _____
   Please elaborate: _____

7. Has your firm searched for new employees with such capabilities and failed to find them? Yes ☐
   No ☐

Additional comments: _____

Optional for follow-up contact: Name/Title _____
Telephone _____

Thank you for your prompt help.

California Postsecondary Education Commission

This survey is conducted in cooperation with the California Department of Commerce and the California World Trade Commission.

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

THE California Postsecondary Education Commission is a citizen board established in 1974 by the Legislature and Governor to coordinate the efforts of California's colleges and universities and to provide independent, non-partisan policy analysis and recommendations to the Governor and Legislature.

Members of the Commission

The Commission consists of 15 members. Nine represent the general public, with three each appointed for six-year terms by the Governor, the Senate Rules Committee, and the Speaker of the Assembly. The other six represent the major segments of postsecondary education in California.

As of January 1989, the Commissioners representing the general public are:

Mim Andelson, Los Angeles
C. Thomas Dean, Long Beach
Henry Der, San Francisco
Seymour M. Farber, M.D., San Francisco
Helen Z. Hansen, Long Beach
Lowell J. Paige, El Macero, *Vice Chairperson*
Cruz Reynoso, Sacramento
Sharon N. Skog, Palo Alto, *Chairperson*
Stephen P. Teale, M.D., Modesto

Representatives of the segments are:

Yori Wada, San Francisco; representing the Regents of the University of California

Claudia H. Hampton, Los Angeles; representing the Trustees of the California State University

John F. Parkhurst, Folsom; representing the Board of Governors of the California Community Colleges

Harry Wugalter, Thousand Oaks; representing the Chairman of the Council for Private Postsecondary Educational Institutions

Kenneth L. Peters, Tarzana; representing the California State Board of Education

James B. Jamieson, San Luis Obispo; representing California's independent colleges and universities

Functions of the Commission

The Commission is charged by the Legislature and Governor to "assure the effective utilization of public postsecondary education resources, thereby eliminating waste and unnecessary duplication, and to promote diversity, innovation, and responsiveness to student and societal needs."

To this end, the Commission conducts independent reviews of matters affecting the 2,600 institutions of postsecondary education in California, including Community Colleges, four-year colleges, universities, and professional and occupational schools.

As an advisory planning and coordinating body, the Commission does not administer or govern any institutions, nor does it approve, authorize, or accredit any of them. Instead, it cooperates with other state agencies and non-governmental groups that perform these functions, while operating as an independent board with its own staff and its own specific duties of evaluation, coordination, and planning,

Operation of the Commission

The Commission holds regular meetings throughout the year at which it debates and takes action on staff studies and takes positions on proposed legislation affecting education beyond the high school in California. By law, the Commission's meetings are open to the public. Requests to address the Commission may be made by writing the Commission in advance or by submitting a request prior to the start of a meeting.

The Commission's day-to-day work is carried out by its staff in Sacramento, under the guidance of its executive director, Kenneth B. O'Brien, who is appointed by the Commission.

The Commission issues some 40 to 50 reports each year on major issues confronting California postsecondary education, and it makes these publications available without charge while supplies last.

Further information about the Commission, its meetings, its staff, and its publications may be obtained from the Commission offices at 1020 Twelfth Street, Third Floor, Sacramento, CA 98514; telephone (916) 445-7933.

EDUCATION NEEDS OF CALIFORNIA FIRMS FOR TRADE IN PACIFIC RIM MARKETS

ONE of a series of reports published by the Commission as part of its planning and coordinating responsibilities. Additional copies may be obtained without charge from the Publications Office, California Postsecondary Education Commission, Third Floor, 1020 Twelfth Street, Sacramento, California 95814-3985.

Recent reports of the Commission include:

88-27 Proposed Construction of Off-Campus Community College Centers in Western Riverside County: A Report to the Governor and Legislature in Response to a Request of the Riverside and Mt. San Jacinto Community College Districts for Capital Funds to Build Permanent Off-Campus Centers in Norco and Moreno Valley and South of Sun City (June 1988)

88-28 Annual Report on Program Review Activities, 1986-87: The Twelfth in a Series of Reports to the Legislature and the Governor on Program Review by Commission Staff and California's Public Colleges and Universities (June 1988)

88-29 Diversification of the Faculty and Staff in California Public Postsecondary Education from 1977 to 1987: The Fifth in the Commission's Series of Biennial Reports on Equal Employment Opportunity in California's Public Colleges and Universities (September 1988)

88-30 Supplemental Report on Academic Salaries, 1987-88: A Report to the Governor and Legislature in Response to Senate Concurrent Resolution No. 51 (1965) and Subsequent Postsecondary Salary Legislation (September 1988)

88-31 The Role of the California Postsecondary Education Commission in Achieving Educational Equity in California: The Report of the Commission's Special Committee on Educational Equity, Cruz Reynoso, *Chair* (September 1988)

88-32 A Comprehensive Student Information System, by John G. Harrison: A Report Prepared for the California Postsecondary Education Commission by the Wyndgate Group, Ltd. (September 1988)

88-33 Appropriations in the 1988-89 State Budget for the Public Segments of Higher Education: A Staff Report to the California Postsecondary Education Commission (September 1988)

88-34 Legislation Affecting Higher Education Enacted During the 1987-88 Session: A Staff Report to the California Postsecondary Education Commission (October 1988)

88-35 Meeting California's Adult Education Needs: Recommendations to the Legislature in Response to Supplemental Language in the 1988 Budget Act (October 1988)

88-36 Implementing a Comprehensive Student Information System in California: A Recommended Plan of Action (October 1988)

88-37 Proposed Establishment of San Jose State University's Tri-County Center in Salinas: A Report to the Governor and Legislature in Response to a Request by the California State University for Funds to Create an Off-Campus Center to Serve Monterey, San Benito, and Santa Cruz Counties (October 1988)

88-38 Progress in Implementing the Recommendations of the Commission's 1987 Report on Strengthening Transfer and Articulation: A Staff Report to the California Postsecondary Education Commission (October 1988)

88-39 Proposition 98 -- The Classroom Instruction Improvement and Accountability Act: A Staff Analysis for the California Postsecondary Education Commission (October 1988)

88-40 The Fourth Segment: Accredited Independent Postsecondary Education in California. The Fifth in a Series of Reports on the Financial Condition of California's Regionally Accredited Independent Colleges and Universities (December 1988)

88-41 Beyond Assessment: Enhancing the Learning and Development of California's Changing Student Population. A Report in Response to the Higher Education Talent Development Act of 1987 (Assembly Bill 2016; Chapter 1296, Statutes of 1987) (December 1988)

88-42 The Role of the Commission in Achieving Educational Equity: A Declaration of Policy (December 1988)

88-43 Education Needs of California Firms for Trade in Pacific Rim Markets: A Staff Report to the California Postsecondary Education Commission (December 1988)

88-44 Distribution of Revenue from Concurrent Enrollment at the California State University: A Report to the Legislature in Response to Supplemental Language to the 1988-89 Budget Act (December 1988)

88-45 Prepaid College Tuition and Savings Bond Programs: A Staff Report to the California Postsecondary Education Commission (December 1988)